

State of California  
AIR RESOURCES BOARD

EXECUTIVE ORDER A-13-110

Relating to Certification of New Heavy-Duty Motor Vehicle Engines

CATERPILLAR, INC

Pursuant to the authority vested in the Air Resources Board by Sections 43100, 43102 and 43103 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-45-9;

IT IS ORDERED AND RESOLVED: That the following 1997 model-year Caterpillar, Inc. diesel-cycle engines are certified for use in motor vehicles with a manufacturer's gross vehicle weight rating (GVWR) over 14,000 pounds:

Fuel Type: Diesel

<u>Engine Family</u>	<u>Engine Displacement Liters (Cubic Inches)</u>	<u>Exhaust Emission Control Systems and Special Features</u>
VCP638EZDARA	10.5 (638)	Turbocharger Charge Air Cooler Smoke Puff Limiter

Engine models and codes are listed on attachments.

The following are the certification exhaust emission standards for this engine family in grams per brake horsepower-hour:

<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
1.3	15.5	5.0	0.10

The following are the certification exhaust emission values for this engine family in grams per brake horsepower-hour:

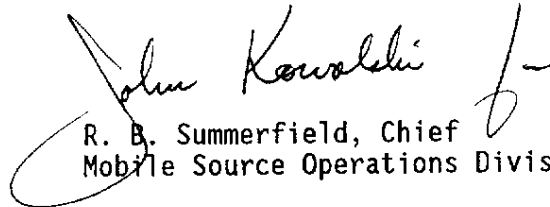
<u>Engine Family</u>	<u>Hydrocarbons</u>	<u>Carbon Monoxide</u>	<u>Nitrogen Oxides</u>	<u>Particulates</u>
VCP638EZDARA	0.5	0.8	5.0	0.09

BE IT FURTHER RESOLVED: That for the listed engine models, the manufacturer has submitted the materials to demonstrate certification compliance with the Board's emission control system warranty provisions (Title 13, California Code of Regulations, Section 2035 et seq.).

Engines certified under this Executive Order must conform to all applicable California emission regulations.

The Bureau of Automotive Repair will be notified by copy of this order and attachments.

Executed at El Monte, California this 16<sup>th</sup> day of December 1996.

  
R. B. Summerfield, Chief  
Mobile Source Operations Division

1997 AIR RESOURCES BOARD SUPPLEMENTAL DATA SHEET  
HEAVY-DUTY DIESEL-STANDARD ENGINES

Manufacturer	Caterpillar Inc.		Engine Family	VCP638EZDARA		
Displacement	10.5	/	Liters	638	/	Cubic Inches
Maximum Rated Power:	300	HP @	1900	RPM	Engine Configuration: I6	
Ignition: Compression	X	Compression with Glow Plug			Spark	
Fuel Type (s): Dedicated	<del>X</del>	Flex-Fuel	Dual-Fuel	Diesel	X	M100 M85
		CNG	LNG	LPG	Other (specify)	
Diesel Cert Fuel: 13CCR 2282		40 CFR 86.1313-90			40 CFR 86.1313-94	X
Primary Intended Service Class:	LHD	MHD	HHD	X	Urban Bus	
Exhaust ECS (incl. MFI, TC, CAC)	CAC, SPL, TC					

(Use abbreviations per SAE J1930 SEP91)

Engine Model (Eng. Code)	Rated HP @ RPM	Fuel Rate @ Rated HP mm <sup>3</sup> /stroke (lbs/hr)	Fuel Pump & Injector Part No.	ECM/PCM Part No.	EGR Valve Part No.	PTOX / Catalytic Converter Part No.
3306C - 1	300 @ 1900	183 (117.1)	1193842 (1) 1007564 (2)	---	---	---

- (1) FUEL PUMP  
(2) FUEL INJECTOR

ISSUE DATE	09 SEPT 96							
REVISION NO.								
REVISION DATE								